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Wisconsin and United States Prices and Average Costs of Fuels

This chapter begins with graphs showing the average annual costs of major fuels for the residential, commercial and industrial sectors over the past 38 years. Actual prices are presented, along with adjusted prices, which account for the effects of general price inflation. The Gross Domestic Product price deflator was used to adjust prices for inflation between each year and 2007. In other words, actual prices are adjusted to be comparable to 2007 prices, in "real" terms, with the effects of inflation removed. All prices are reported in current or actual terms unless noted explicitly as being real or adjusted prices.

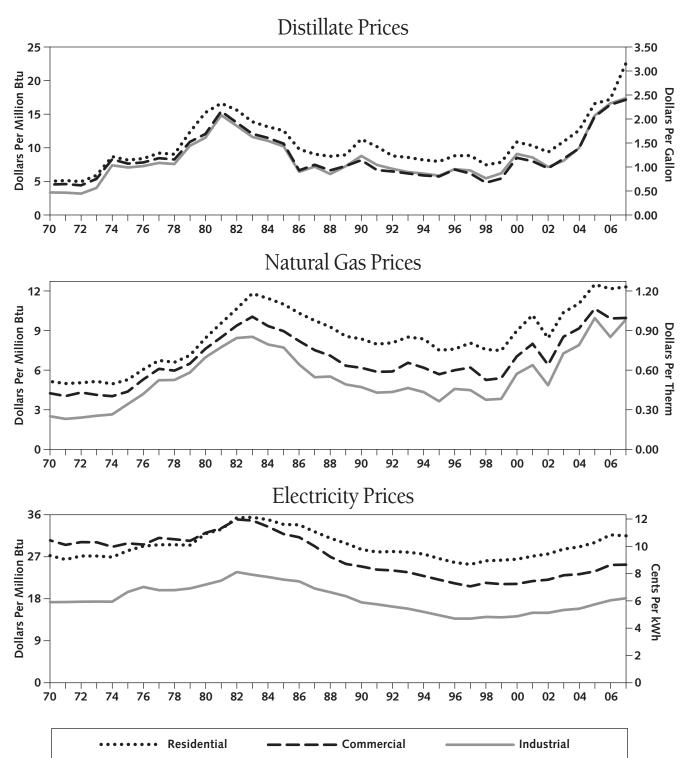
Electric utilities' average annual costs for petroleum, natural gas and coal are shown for 1970, 1975, 1980, 1985, 1990, 1995 and each year from 2000 on. Annual retail gasoline and diesel prices are shown, along with applicable taxes, in five-year intervals from 1970 to 2005, and each year after that. Also, the average price of gasoline is shown by month.

Petroleum prices increased in 2007. For example, the regular, unleaded gasoline price rose by over 9.1 percent between 2006 and 2007.

In 2007, natural gas prices increased in all the sectors except the utility sector. The sector decreased by 1 percent. In the industrial sector, the natural gas price increased 4.2 percent.

The chapter compares natural gas and electricity prices for residential, commercial, industrial and other customer service classes with the average price for all customers as a whole. Also included is a sector-by-sector comparison of 2007 Wisconsin natural gas and electricity prices with prices in other midwestern states.

Wisconsin Energy Prices, 1970-2007 (2007 Dollars)



Source: Wisconsin Office of Energy Independence.

Wisconsin Residential Energy Prices, by Type of Fuel 1970-2007

(Dollars Per Million Btu)

In 2007, residential energy prices increased for each fuel type: liquid propane (LPG) (22.1 percent), natural gas (3.8 percent), heating oil (34.4 percent) and electricity (2 percent). The last four columns in the table below show the same prices after adjusting for inflation.

		Curre	nt Dollars		2007 Dollars ^a				
Year	Fuel Oil	LPG	Natural Gas	Electricity	Fuel Oil	LPG	Natural Gas	Electricity	
1970	1.17	2.07	1.21	6.42	4.95	8.76	5.12	27.17	
1975	2.65	3.74	1.71	9.20	8.13	11.47	5.25	28.22	
1980	6.87	6.55	3.80	14.39	15.21	14.50	8.41	31.86	
1985	7.28	8.43	6.39	19.72	12.50	14.47	10.97	33.85	
1990	7.65	8.75	5.69	19.43	11.22	12.83	8.34	28.49	
1995	6.10	7.84	5.76	20.42	7.92	10.18	7.48	26.53	
2000	9.03	11.22	7.49	22.06	10.80	13.43	8.96	26.40	
2001	8.78	12.92	8.67	23.15	10.26	15.10	10.13	27.05	
2002	8.10	10.63	7.30	23.97	9.30	12.21	8.38	27.53	
2003	9.67	12.62	9.20	25.40	10.87	14.19	10.35	28.57	
2004	11.49	14.17	10.09	26.57	12.56	15.49	11.03	29.05	
2005	15.60 16.71	16.87 18.27	11.77 11.83	28.30 30.79	16.52 17.15	17.86 18.75	12.46 12.14	29.97 31.61	
2007 ^p	22.45	22.30	12.28	31.41	22.45	22.30	12.28	31.41	

^a 2007 dollar values computed with Gross National Product Implicit Price Deflator. See table on price indices (page 106).

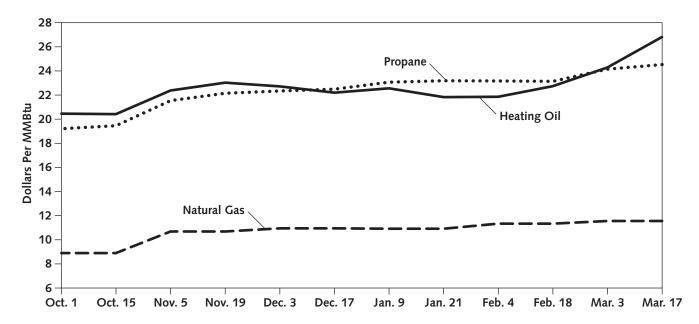
Source: U.S. Department of Energy, "State Btu Unit Price Data Base," unpublished (May 1981); Wisconsin Office of Energy Independence, periodic telephone surveys of fuel oil and LP gas distributors and natural gas and electricity price monitoring reports; American Gas Association, *Gas Facts* (1971-2001); Edison Electric Institute, *Statistical Year Book* (1971-2003); Public Service Commission of Wisconsin, PSC AF 2 (2001-2007); U.S. Department of Energy, Natural Gas Annual [DOE/EIA-0131(06)] (October 2007).

P Preliminary estimates.

Wisconsin Residential Energy Prices, by Type of Fuel, 2007-2008 Winter Heating Season

(Dollars Per Gallon and Dollars Per Million Btu)

For the 2007-2008 winter heating season, heating oil, propane and natural gas prices peaked in mid March.



Date	Heat	ing Oil	Pro	pane	Natural Gas ^a
2007-08	\$/Gallon	\$/MMBtu	\$/Gallon	\$/MMBtu	\$/MMBtu
Oct. 1	\$2.83	\$20.43	\$1.83	\$19.18	\$8.87
Oct. 15	\$2.83	\$20.39	\$1.86	\$19.43	\$8.87
Nov. 5	\$3.10	\$22.35	\$2.05	\$21.51	\$10.66
Nov. 19	\$3.19	\$23.00	\$2.11	\$22.12	\$10.66
Dec. 3	\$3.15	\$22.69	\$2.13	\$22.31	\$10.92
Dec. 17	\$3.08	\$22.17	\$2.14	\$22.46	\$10.92
Jan. 9	\$3.12	\$22.53	\$2.20	\$23.04	\$10.89
Jan. 21	\$3.02	\$21.80	\$2.21	\$23.16	\$10.89
Feb. 4	\$3.03	\$21.83	\$2.21	\$23.14	\$11.31
Feb. 18	\$3.15	\$22.71	\$2.21	\$23.11	\$11.31
Mar. 3	\$3.37	\$24.26	\$2.30	\$24.12	\$11.53
Mar. 17	\$3.72	\$26.79	\$2.34	\$24.50	\$11.53
Average Price for					
the Heating Season	\$3.13	\$22.45	\$2.13	\$22.30	\$10.70

^a Natural gas pricing data presented here are different from other data in this book due to difference in data source and duration of the average. These data are from a survey of federally-identified fuel wholesalers and retailers; data elsewhere in the book are derived from Public Service Commission utility data and the federal Energy Information Administration. Most prices in the book are for the entire calendar year, while this is for the heating season (October – March) only.

Source: Telephone survey of energy retailers conducted by the Department of Administration, Office of Energy Independence throughout the winter heating season, starting October 1, 2007 and ending March 24, 2008.

Wisconsin Commercial Energy Prices, by Type of Fuel 1970-2007

(Dollars Per Million Btu)

In 2007, the real price of fuel increased: distillate oil (7.3 percent), residual oil (6.1 percent), electricity (2.9 percent) and natural gas (3.1 percent). The real price of electricity, the major energy expense in the commercial sector, is 21.3 percent lower than its 1980 price, adjusted for inflation.

		Current	Dollars		2007 Dollars ^a				
Year	Distillate Oil	Residual Oil	Natural Gas	Electricity	Distillate Oil	Residual Oil	Natural Gas	Electricity	
1970	1.03	0.51	0.97	7.00	4.48	2.22	4.22	30.44	
1975	2.41	2.11	1.38	9.46	7.59	6.64	4.35	29.80	
1980	5.43	3.85	3.43	14.47	12.02	8.53	7.60	32.05	
1985	6.16	4.85	5.20	18.52	10.57	8.33	8.93	31.79	
1990	5.52	2.41	4.19	16.94	8.10	3.53	6.15	24.84	
1995	4.37	2.36	4.36	16.94	5.68	3.07	5.66	22.00	
2000	7.06	4.34	5.87	17.64	8.45	5.20	7.02	21.11	
2001	6.80	2.67	6.81	18.58	7.95	3.12	7.96	21.71	
2002	5.99	4.01	5.54	19.16	6.88	4.61	6.36	22.01	
2003	7.40	4.58	7.57	20.42	8.32	5.15	8.51	22.96	
2004	9.03	4.88	8.36	21.21	9.87	5.33	9.14	23.19	
2005	13.77 15.93	6.35 7.88	10.03 9.63	22.47 24.52	14.58 16.36	6.72 8.09	10.62 9.89	23.80 25.17	
2007P	17.10	8.36	9.93	25.23	17.10	8.36	9.93	25.23	

^a 2007 dollar values computed with Gross National Product Implicit Price Deflator. See table on price indices (page 106).

Source: U.S. Department of Energy, "State Btu Unit Price Data Base", unpublished (May 1981), Petroleum Marketing Monthly, (Jan. 1985 - Mar. 2008), and unpublished analysis of Wisconsin residual oil prices (1985-2006); American Gas Association, Gas Facts (1971-2001); Edison Electric Institute, Statistical Year Book (1971-2001); U.S. Department of Energy, Electric Sales and Revenue 1993-1997 [DOE/EIA-0540 (97)] (December 1999), Electric Power Monthly [DOE/EIA-0226 (03/08)] (March 2008), Natural Gas Annual, (1994-2006) [DOE/EIA-0131(06)] (October 2007), and Natural Gas Monthly [DOE/EIA-0130(04/07)] (April 2008); U.S. DOE, Petroleum Marketing Annual [DOE/EIA-0487(2007)], Table 38 (August 2007).

Preliminary estimates.

Wisconsin Industrial Energy Prices, by Type of Fuel 1970-2007

(Dollars Per Million Btu)

In 2007, the real prices of all industrial fuels increased. However, the real price of coal and electricity are almost 30 percent and 24 percent lower than their 1981 peak price and 1982 peak price, respectively, adjusted for inflation.

			Cui	rent Dolla	ırs			20	07 Dollars	a	
Year	GDP Deflator	Distillate Oil	Residual Oil	Natural Gas	Coal	Electricity	Distillate Oil	Residual Oil	Natural Gas	Coal	Electricity
1970	27.53	0.76	0.50	0.57	0.66	3.96	3.30	2.17	2.48	2.87	17.19
1975	38.00	2.23	2.06	1.08	1.28	6.15	7.02	6.49	3.40	4.03	19.38
1980	54.04	5.18	3.31	3.14	1.75	9.46	11.47	7.33	6.95	3.88	20.96
1985	69.71	5.92	4.21	4.48	2.11	12.83	10.16	7.23	7.69	3.62	22.03
1990	81.59	5.95	2.29	3.20	1.80	11.69	8.73	3.36	4.69	2.64	17.15
1995	92.11	4.46	2.35	2.78	1.66	11.08	5.79	3.05	3.61	2.16	14.39
2000	100.00	7.55	4.34	4.76	1.66	11.84	9.03	5.20	5.70	1.99	14.16
2001	102.40	7.28	2.67	5.43	1.80	12.77	8.51	3.12	6.35	2.10	14.93
2002	104.19	6.17	4.01	4.19	1.97	12.98	7.09	4.61	4.81	2.26	14.91
2003	106.41	7.14	4.58	6.45	1.95	13.80	8.03	5.15	7.25	2.19	15.52
2004	109.46	9.07	4.88	7.21	2.10	14.44	9.92	5.33	7.88	2.30	15.79
2005	113.00 116.57	13.92 16.13	6.35 7.88	9.35 8.25	2.56	15.79 17.14	14.74 16.56	6.72 8.09	9.90 8.47	2.71	16.72 17.59
2007 ^p	119.66	17.33	8.36	9.80	3.00	18.02	17.33	8.36	9.80	3.00	18.02

^a 2007 dollar values computed with Gross National Product Implicit Price Deflator. See table on price indices (page 106).

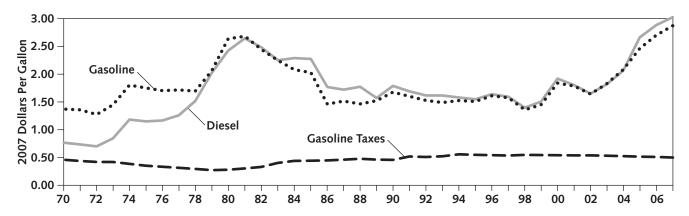
Source: U.S. Department of Energy, "State Btu Unit Price Data Base", unpublished (May 1981), State Energy Consumption, Price and Expenditure Report 1960-2004 http://www.eia.doe.gov/emeu/states/_seds.html, (June 2007), Petroleum Marketing Monthly (Jan. 1985-Mar. 2007), Quarterly Coal Report [DOE/EIA-0121(2006/4Q)] (March 2007), http://www.eia.doe.gov/cneaf/coal/quarterly/qcr.pdf, Natural Gas Annual, (1994-2005) [DOE/EIA-0131(05)] (November 2006), and Natural Gas Monthly [DOE/EIA-0130(04/07] (April 2008); Office of Energy Independence, telephone surveys of fuel oil and LP gas distributors (1977-2007); unpublished analysis of Wisconsin's residual oil prices (1985-2007); U.S. DOE, Petroleum Marketing Annual [DOE/EIA-0487(2007)], Table 38 (August 2007).

P Preliminary estimates.

Wisconsin Motor Gasoline and Diesel Fuel Retail Prices, by Grade and Type of Service, 1970-2007

(Dollars Per Gallon)

The real price of gasoline in 2007 was 9.1 percent higher than in 2006 and 7.1 percent higher than the previous peak of \$2.676 in 1981. 2007 real gas prices are the highest on record since data for this book were compiled in 1970. Starting on January 1, 1995, only reformulated gasoline could be sold in six southeastern Wisconsin counties in order to improve air quality.



		Current Do		2007 Dollars				
Year	Regular Unleaded Gasoline (Self-Service) ^a	Regular Reformulated Gasoline	Diesel Fuel ^b	Federal and State Taxes on Gasoline ^c	Regular Unleaded Gasoline (Self-Service) ^a	Diesel Fuel ^b	Federal and State Taxes on Gasoline ^c	
1970	0.332		0.184	0.110	1.365	0.760	0.453	
1975	0.554	_	0.363	0.110	1.745	1.144	0.346	
1980	1.188	_	1.093	0.124	2.631	2.420	0.274	
1985	1.178	_	1.321	0.254	2.022	2.268	0.436	
1990	1.139	_	1.215	0.308	1.670	1.782	0.451	
1995	1.156	1.181	1.186	0.417	1.502	1.541	0.542	
2000	1.532	1.556	1.598	0.447	1.833	1.912	0.535	
2005	2.321	2.338	2.510	0.481	2.458	2.658	0.509	
2006	2.626	2.639	2.804	0.491	2.696	2.878	0.504	
2007	2.866	2.851	3.020	0.493	2.866	3.020	0.493	

^a Since 1991, more than 99 percent of the gasoline sold in Wisconsin has been unleaded. The price is for full service gasoline until 1979 when the price is changed to represent self-service gasoline.

Source: Wisconsin Division of the American Automobile Association, *Fuel Gauge Report*.

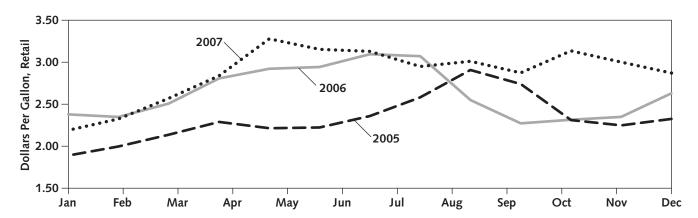
b From 1970 to 1988, the price is the full service price. Beginning in 1989 the price is the self-service price.

^c A state petroleum inspection fee is also charged. In 2007, this fee was 3 cents per gallon.

Wisconsin Retail and Wholesale Self-Service Unleaded Motor Gasoline Prices, by Month, 2004-2007^a

(Dollars Per Gallon)

The retail and wholesale prices are for regular grade gasoline. The wholesale price of regular grade gasoline (before taxes and retail mark-up) increased 12.8 percent in 2007, while the statewide retail price increased 9.2 percent.



	2	2005		006	2	007
Month	Retail	Wholesale	Retail	Wholesale	Retail	Wholesale
January	1.885	1.313	2.375	1.741	2.186	1.506
February	1.993	1.384	2.344	1.688	2.321	1.739
March	2.133	1.553	2.504	1.914	2.566	1.940
April	2.285	1.621	2.803	2.163	2.834	2.238
May	2.210	1.536	2.918	2.233	3.274	2.638
June	2.219	1.625	2.939	2.287	3.149	2.446
July	2.355	1.700	3.091	2.424	3.125	2.385
August	2.577	2.012	3.068	2.320	2.945	2.310
September	2.903	2.215	2.545	1.845	3.007	2.322
October	2.736	2.029	2.268	1.655	2.869	2.280
November	2.307	1.614	2.311	1.693	3.131	2.486
December	2.244	1.653	2.345	1.700	2.997	2.396
Average	2.321	1.688	2.626	1.972	2.867	2.224

^a The retail and wholesale prices are for a blend of regular, unleaded conventional and reformulated gasolines. The wholesale price refers to the delivered dealer tank wagon price

Source: U. S. Department of Energy, Energy Information Administration, <u>Petroleum Marketing Monthly</u> 1993-2007; Wisconsin Division of the American Automobile Association, <u>Fuel Gauge Report</u> (1993-2007).

Wisconsin Electric Utility Average Costs of Fuel 1970-2007

(Dollars Per Million Btu)

In 2007, the cost of coal used as electric utility fuel increased 13.4 percent. The utility cost of natural gas increased 0.9 percent. Oil prices increased 10.9 percent. Adjusted for inflation, coal prices are 101.2 percent below their peak in 1982, also the peak year for oil prices. Natural gas prices peaked in 2007. Coal remained the lowest cost electric utility fossil fuel.

		Current Dollarsb,c		2007 Dollars ^a				
Year	Oil	Natural Gas	Coal	Oil	Natural Gas	Coal		
1970	0.66	0.35	0.39	2.87	1.52	1.70		
1975	2.01	0.80	0.89	6.33	2.52	2.80		
1980	4.98	2.89	1.44	11.03	6.40	3.19		
1985	5.43	4.17	1.80	9.32	7.16	3.09		
1990	5.26	2.93	1.36	7.71	4.30	1.99		
1995	3.85	2.21	1.14	5.00	2.87	1.48		
2000	6.27	4.45	1.02	7.50	5.32	1.22		
2001	6.45	4.73	1.05	7.54	5.53	1.23		
2002	5.24	3.78	1.10	6.02	4.34	1.26		
2003	6.32	5.83	1.13	7.11	6.56	1.27		
2004	7.24	6.36	1.16	7.91	6.95	1.27		
2005	12.19	9.46	1.26	12.91	10.02	1.33		
2006	15.11	7.84	1.49	15.51	8.05	1.53		
2007 ^p	16.75	7.91	1.69	16.75	7.91	1.69		

^a 2007 dollar values computed with Gross National Product Implicit Price Deflator. See table on price indices (page 112).

Source: Edison Electric Institute, <u>Statistical Yearbook</u> (1971-1996); American Gas Association, <u>Gas Facts</u> (1971-1990). U.S. Department of Energy, Energy Information Administration, <u>Electric Power Annual</u>, 1990-2000, [DOE/EIA-0348(2000)/1] (August 2001), and <u>Electric Power Monthly</u>, [DOE/EIA-0226(2008/04)] www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html

^b Beginning in 1988, the U.S. DOE data source has been used.

^c Beginning in 1990, <u>Statistical Yearbook</u> natural gas data has been used.

^p Preliminary estimates.

Wisconsin Electric Utility Coal Costs and Sulfur Content of Coal, by Utility Plant, 2007

Wisconsin utility coal has 57 percent less sulfur and costs 8.7 percent less than the average coal used in the United States. Wisconsin utilities have been very successful in meeting and maintaining the 1993 goals of Wisconsin's acid rain control law through increased use of low sulfur coal. In 2007, the average Wisconsin coal cost, in cents per million Btu, increased 11.6 percent, while sulphur content increased 2.6 percent.

Plant	Receipts Thousand Tons	Average Btu Per Pound	Average Cents Per Million Btu	Average Dollars Per Ton	Average Percent Sulfur ^a
Dairyland Power Cooperative	3,082	9,643	149.7	28.87	0.61
Alma - Madgett	1,847	9,494	147.3	27.97	0.55
Genoa 3	1,235	9,802	153.7	30.13	0.69
Madison Gas and Electric Co.	92	9,871	346.7	68.44	1.33
Blount Street	92	9,871	346.7	68.44	1.33
Manitowoc Public Utilities	248	13,649	150.9	41.19	1.47
Manitowoc	248	13,649	150.9	41.19	1.47
Northern States Power Co.	209	8,873	352.0	62.47	0.24
Bay Front	209	8,873	352.0	62.47	0.24
Wisconsin Electric Power Co.	11,553	8,587	160.1	27.47	0.32
Oak Creek	3,163	8,796	178.5	31.41	0.22
Pleasant Prairie	4,813	8,401	128.6	21.62	0.32
Presque Isle	2,770	10,340	203.0	41.98	0.37
Valley	807	11,946	280.9	67.11	0.44
Wisconsin Power and Light Co.	8,067	8,536	149.2	25.47	0.31
Columbia	4,436	8,491	134.2	22.78	0.31
Edgewater	2,905	8,692	204.2	35.50	0.31
Nelson Dewey	726	9,915	165.8	32.88	0.30
Wisconsin Public Service Corp.	2,973	8,634	146.2	25.20	0.32
Pulliam	1,373	8,588	133.0	23.10	0.37
Weston	1,600	8,673	157.5	27.01	0.27
Wisconsin	23,539	8,729	162.5	28.37	0.39
United States	789,377	10,143	178.0	36.11	0.90

^a Percent by weight.

Source: U.S. Department of Energy, EIA, *Electric Power Monthly*, [DOE/EIA-0226(2008/04)] (April 2008); http://www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html. Annual reports of Wisconsin electric generating utilities (2007), http://psc.wi.gov/a_annlreport/default.htm.

Wisconsin Natural Gas Prices, by Economic Sector 1970-2007

(Dollars Per Million Btu)

In 2007, natural gas prices increased in all sectors. On average, the price increased 3 percent.

Year	Residential	Commercial	Industrial	Utility	Average
1970	\$1.21	\$0.97	\$0.57	\$0.35	\$0.80
1975	1.71	1.38	1.08	0.80	1.31
1980	3.80	3.43	3.14	2.89	3.42
1985	6.39	5.20	4.48	4.17	5.36
1990	5.69	4.19	3.20	2.93	4.37
1995	5.76	4.36	2.78	2.21	4.20
2000	7.49	5.87	4.76	4.45	5.93
2005	11.77	10.03	9.35	8.82	10.20
2006	11.83	9.63	8.25	7.80	9.67
2007 ^p	12.28	9.66	8.60	7.91	9.96

P Preliminary estimates.

Source: Pages 98 and 104 of this publication, and the following table.

Industrial and Commercial Natural Gas Prices, in Detail 2005-2007

(Dollars Per Million Btu)

Because Wisconsin's industrial and commercial sectors purchase transport gas, their average gas prices fall below the average utility system price reported in the U.S. Department of Energy's <u>Natural Gas Annual</u> and <u>Natural Gas Monthly</u>.

	Industrial			Commercial		
	2005	2006	2007 ^p	2005	2006	2007 ^p
Interruptible	\$8.92	\$8.20	\$8.00	\$8.92	\$8.20	\$8.00
Firm	10.50	10.40	9.65	10.50	10.40	9.65
Space Heating	10.18	10.10	10.15	10.18	10.10	10.15
Transport	9.27	8.01	7.88	9.27	8.01	7.88
Average Without Transport (utility system gas)	\$9.78	\$9.44	\$9.46	\$10.25	\$10.18	\$10.27
Average With Transport	\$9.35	\$8.25	\$8.60	\$10.03	\$9.63	\$9.66

P Preliminary estimates.

Source: Public Service Commission of Wisconsin, Accounts and Finance Division, form PSC-AF 2 (1994-2007); U.S. Department of Energy, Natural Gas Annual, 1994-2006 [DOE/EIA-0131(06)] (October 2007), and Natural Gas Monthly [DOE/EIA-0130(2008/04)] (June 2008).

Wisconsin Natural Gas Prices, by Public Service Commission of Wisconsin Sector, 1970-2007

(Dollars Per Million Btu)

The prices of utility gas for all customer classes decreased in 2007, except for Space Heating in the Commercial and Industrial sectors. Despite decreases in prices, the average price of natural gas in 2007 increased by 0.2 percent over 2006. Prices for commercial and industrial gas do not include the price of transport gas but represent the cost of gas purchased directly from the utility.

	Res	idential	Cor	Commercial and Industrial				
Year	General	Space Heating	Firm	Interruptible	Space Heating	Average		
1970	\$1.55	\$1.18	\$0.72	\$0.48	\$0.92	\$0.81		
1975	2.13	1.68	1.16	1.00	1.39	1.31		
1980	4.25	3.78	3.26	3.01	3.45	3.42		
1985	7.49	6.35	5.02	4.04	5.30	5.33		
1990	6.78	5.67	4.27	2.97	4.52	4.86		
1995	7.02	5.74	4.14	2.46	4.63	4.71		
2000	8.87	7.49	7.32	4.63	6.05	6.75		
2001	10.01	8.66	7.60	5.17	7.27	7.86		
2002	8.79	7.29	6.19	3.91	5.92	6.50		
2003	10.11	9.19	8.00	5.89	7.75	8.39		
2004	11.21	10.08	8.80	6.95	8.56	9.27		
2005	13.35	11.75	10.50	8.92	10.18	10.82		
2006	13.70	11.80	10.40	8.20	10.10	10.75		
2007 ^p	13.57	11.79	9.64	8.00	10.15	10.77		

P Preliminary estimates.

Source: Public Service Commission of Wisconsin, Accounts and Finance Division, <u>Statistics of Wisconsin Public Utilities</u>, Bulletin #8 (1971-1993), and form PSC-AF 2 (1994-2007).

Wisconsin Electricity Prices, by Economic Sector 1970-2007

(Cents Per kWh)

Electricity prices increased across all sectors in 2007. The Public Service Commission of Wisconsin and the federal Department of Energy, Energy Information Administration (EIA) both report electricity prices for Wisconsin economic sectors. Because of differences in sector definitions, accounting methods and inclusion of cooperative utilities, their prices do not match.

	Public Se	rvice Commissio	on of Wiscons	sin Sectors	Energy Information Administration ^c				
Year	Residential	Commercial & Industrial	Rurala	Average ^b	Residential	Commercial	Industrial	Average ^b	
1970	2.13	1.69	2.41	1.89	2.19	2.39	1.35	1.91	
1975	3.22	2.60	3.42	2.85	3.14	3.23	2.10	2.80	
1980	4.80	3.91	4.80	4.24	4.91	4.94	3.23	4.31	
1981	5.48	4.41	5.48	4.79	5.53	5.57	3.68	4.85	
1982	6.29	5.05	6.18	5.50	6.31	6.25	4.23	5.53	
1983	6.69	5.28	6.44	5.78	6.58	6.45	4.29	5.70	
1984	6.72	5.21	6.45	5.72	6.73	6.44	4.36	5.78	
1985	6.70	5.15	6.38	5.67	6.73	6.32	4.38	5.75	
1990	6.55	4.68	6.29	5.27	6.63	5.78	3.99	5.37	
1995	6.91	4.55	6.61	5.27	6.97	5.78	3.78	5.36	
2000 ^R	7.70	4.83	6.88	5.65	7.53	6.02	4.04	5.71	
2001 ^R	8.08	5.18	7.27	6.01	7.90	6.34	4.36	6.08	
2002 ^R	8.34	5.34	7.63	6.26	8.18	6.54	4.43	6.28	
2003 ^R	8.88	5.63	8.31	6.60	8.67	6.97	4.71	6.64	
2004 ^R	9.26	5.84	8.77	6.81	9.07	7.24	4.93	6.88	
2005 ^R	9.87	6.36	9.27	7.41	9.66	7.67	5.39	7.48	
2006 ^R	10.72	7.01	10.26	8.11	10.51	8.37	5.85	8.13	
2007	10.90	7.30	10.56	8.38	10.72	8.61	6.15	8.40	

^a Rural, as listed by utilities.

Source: Public Service Commission of Wisconsin, Accounts and Finance Division, Statistics of Wisconsin Public Utilities, Bulletin #8 (1971-1994); Edison Electric Institute, Statistical Yearbook (1971-1996); U.S. Department of Energy, Energy Information Administration, Electric Sales and Revenue 1993-2000 [DOE/EIA-0540 (2000)] (November 2001), and Electric Power Monthly, Table 5.6.B, [DOE/EIA-0226 (2008/03)] (March 2008). www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html

^b Utilities' average revenue per kWh.

^c Historically, these data were from the Edison Electric Institute which began using U.S. Department of Energy electricity prices from the Energy Information Administration (EIA) in 1996.

^R Denotes years where numbers have been revised based on cited data sources.

Average Utility Electricity and Natural Gas Prices^a, by Economic Sector, for Selected Midwestern States, 2007

In 2007, Wisconsin's average electricity price was 8.8 percent less than the national average but the third highest in the Midwest. Wisconsin's commercial and industrial electricity prices were lower than the national averages for the same sectors by 12.3 and 3.4 percent respectively.

Wisconsin and Michigan lead the Midwest with the highest natural gas prices which are .62 percent less than the national average. The trend for lower prices in Wisconsin continues with commercial gas prices at 7.7 percent below the national average, and stops with industrial gas prices, 21 percent above the national average.

Electricity (Cents Per kWh)

State	Average	Residential	Commercial	Industrial	
Wisconsin	8.40	10.72	8.61	6.15	
Illinois	8.56	10.40	9.14	6.01	
Indiana	6.48	8.12	7.20	4.96	
Iowa	6.80	9.34	7.06	4.76	
Michigan	8.60	10.26	8.95	6.42	
Minnesota	7.36	9.02	7.39	5.70	
Ohio	7.88	9.51	8.63	5.77	
U.S. Average	9.14	10.64	9.67	6.36	

Natural Gas (Dollars Per 1,000 Cubic Feet)

City Gate ^b	Residential Commercial		Industrial	
8.06	NA	10.50	9.56	
7.89	10.79	10.43	NA	
7.83	11.22	10.11	8.46	
NA	11.78	9.97	8.29	
8.06	11.01	NA	9.67	
7.87	11.14	10.14	7.70	
NA	13.46	11.80	11.16	
8.11	13.01	11.31	7.60	
	8.06 7.89 7.83 NA 8.06 7.87 NA	8.06 NA 7.89 10.79 7.83 11.22 NA 11.78 8.06 11.01 7.87 11.14 NA 13.46	8.06 NA 10.50 7.89 10.79 10.43 7.83 11.22 10.11 NA 11.78 9.97 8.06 11.01 NA 7.87 11.14 10.14 NA 13.46 11.80	

NA – Not available.

Source: U.S. Department of Energy, EIA, *Electric Power Monthly*, Table 5.6.B [DOE/EIA-0226 (2008/03)] (March 2008) and *Natural Gas Monthly*, Tables 17, 18, 19 and 20 [DOE/EIA-0130 (2008/06)] (March 2008). www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html

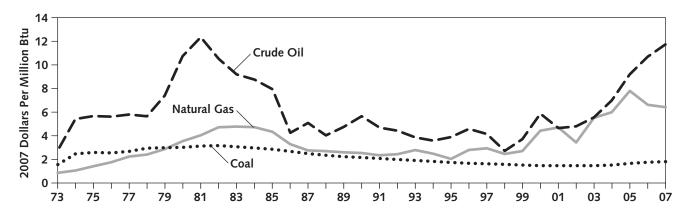
^a Total revenue divided by total sales, by sector, statewide.

^b City Gate is the point where a pipeline or distribution company delivers natural gas to the natural gas utility serving the city and the surrounding area.

U.S. Energy Prices 1973 to 2007

(Dollars Per Million Btu)

In 2007, the real (current dollars) cost of crude oil and coal increased 12.7 percent and 5.3 percent and, respectively, while natural gas prices decreased 0.5 percent. Since 2000, the cost of crude oil has increased 140 percent.



	Current Dollars					2007 Dollars				
Year	Crude Oil Refiners Cost ^a \$/Barrel	Crude Oil Refiners Cost \$/MMBtu	Natural Gas Wellhead ^b \$/MMBtu	Coal Utility Cost ^c \$/MMBtu	Crude Oil Refiners Cost \$/MMBtu	Natural Gas Wellhead \$/MMBtu	Coal Utility Cost \$/MMBtu			
1973	4.15	0.72	0.22	0.41	2.69	0.83	1.52			
1975	10.38	1.79	0.44	0.81	5.64	1.39	2.56			
1980	28.07	4.84	1.59	1.35	10.72	3.52	2.99			
1985	26.75	4.61	2.51	1.65	7.92	4.31	2.83			
1990	22.22	3.83	1.71	1.46	5.62	2.51	2.13			
1995	17.23	2.97	1.55	1.32	3.86	2.01	1.71			
2000	28.26	4.87	3.68	1.20	5.83	4.40	1.44			
2005	50.24	8.66	7.33	1.54	9.17	7.76	1.63			
2006 ^R	60.24	10.39	6.42	1.69	10.66	6.59	1.73			
2007	67.93	11.71	6.39	1.78	11.71	6.39	1.78			

^a Refiners cost of crude oil is the composite price for domestic and imported crude oil. Most of this crude oil is purchased under contract as opposed to the spot market.

Source: U.S. Department of Energy, Energy Information Administration, <u>Monthly Energy Review</u> Tables 9.1, 9.10 and 9.11 [DOE/EIA-0035(2008/04)] (March and April 2008).

^b U.S. DOE natural gas price information is reported in dollars per 1,000 cubic feet. This table assumes 1,000 cubic feet and a million Btu are equivalent.

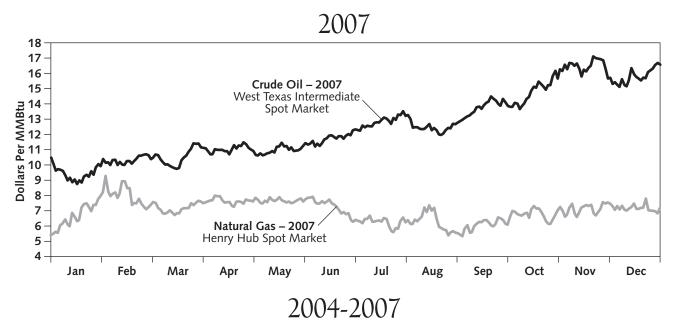
^c Includes cost of delivery to utilities.

R Revised.

U.S. Spot Market Prices of Crude Oil & Natural Gasa

(Dollars Per Million Btu)

In 2007, the average West Texas Intermediate crude oil spot market price increased 9.4 percent, while the Henry Hubb spot market price of natural gas decreased 3.9 percent.



	Crude Oil West Texas Intermediate				Natural Gas Henry Hub			
Month	2004	2005	2006	2007	2004	2005	2006	2007
Jan.	5.92	8.08	11.29	9.39	6.12	6.15	8.66	6.54
Feb.	5.98	8.30	10.63	10.22	5.36	6.14	7.53	8.03
Mar.	6.33	9.34	10.81	10.41	5.39	6.97	6.87	7.11
Apr.	6.34	9.13	11.97	11.04	5.71	7.16	7.06	7.60
May	6.94	8.59	12.21	10.93	6.34	6.47	6.17	7.64
Jun.	6.56	9.72	12.23	11.61	6.27	7.19	6.20	7.35
Jul.	7.03	10.17	12.83	12.77	5.93	7.62	6.15	6.22
Aug.	7.74	11.20	12.59	12.47	5.40	9.53	7.12	6.23
Sep.	7.92	11.31	11.00	13.77	5.16	12.01	4.90	6.07
Oct.	9.19	10.73	10.16	14.76	6.36	13.50	5.87	6.73
Nov.	8.36	10.06	10.19	16.30	6.26	10.31	7.43	7.11
Dec.	7.44	10.24	10.68	15.74	6.57	13.00	6.73	7.14
Average \$/MMBtu	7.14	9.74	11.38	12.45	5.91	8.84	6.72	6.98
Average \$/Barrel	41.44	56.49	66.02	72.21				

^a Graph is plotted with daily 2007 data.

Source: Oil Daily, electronically received data.

^b Henry Hub is a natural gas pipeline hub in Louisiana.

National Indices of Price Inflation 1970-2007

(Annual Rate of Inflation)

Price inflation indices are a measure of how much prices have changed from year to year. Each index is the ratio of prices in a given year to the base year. Each different index is normalized to 100 in different years. See footnotes for specific years. The figure in parentheses represents percent change from the previous year.

Year		Gross Domestic Product ^{a,r}		Producer Price Index ^b		Personal Consumption Expenditures ^{c,r}		Consumer Price Index ^d	
1970	27.53	(5.3%)	36.9	(3.7%)	26.45	(4.8%)	38.8	(5.7%)	
1975	38.00	(9.4)	58.4	(9.2)	35.96	(8.3)	53.8	(9.1)	
1980	54.04	(9.1)	89.8	(14.1)	52.08	(10.7)	82.4	(13.5)	
1985	69.71	(3.0)	103.2	-(0.5)	66.94	(3.3)	107.6	(3.6)	
1990	81.59	(3.9)	116.3	(3.7)	80.50	(4.6)	130.7	(5.4)	
1995	92.11	(2.0)	124.7	(3.6)	91.58	(2.2)	152.4	(2.8)	
1996	93.85	(1.9)	127.7	(2.4)	93.55	(2.2)	156.9	(3.0)	
1997	95.41	(1.7)	127.6	-(0.1)	95.12	(1.7)	160.5	(2.3)	
1998	96.47	(1.1)	124.4	-(2.5)	95.98	(0.9)	163.0	(1.6)	
1999	97.87	(1.5)	125.5	(0.9)	97.58	(1.7)	166.6	(2.2)	
2000	100.00	(2.2)	132.7	(5.7)	100.00	(2.5)	172.2	(3.4)	
2001	102.40	(2.4)	134.2	(1.1)	102.09	(2.1)	177.1	(2.8)	
2002	104.19	(1.7)	131.1	-(2.3)	103.54	(1.4)	179.9	(1.6)	
2003	106.41	(2.1)	138.1	(5.3)	105.60	(2.0)	184.0	(2.3)	
2004	109.46	(2.9)	146.7	(6.2)	108.39	(2.6)	188.9	(2.7)	
2005	113.00	(3.2)	157.4	(7.3)	111.59	(3.0)	195.3	(3.4)	
2006	116.57	(3.2)	164.7	(4.6)	114.67	(2.8)	201.6	(3.2)	
2007 ^p	119.66	(2.7)	172.6	(4.8)	117.59	(2.5)	207.3	(2.8)	

^a Gross Domestic Product Implicit Price Deflator, 2000 = 100, used in other tables to deflate residential, commercial, industrial, motor fuel and electric utility prices.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, <u>Economic Indicators</u> (March 2008) http://www.bea.gov/national/nipaweb/TableView.asp, <u>Survey of Current Business</u> (March 2008), and Bureau of Labor Statistics, (March 2008) http://data.bls.gov/cgi-bin/surveymost?cu.

^b All commodities, 1982 = 100, BLS series ID: WPU00000000.

^c Implicit Price Deflator, 2000 = 100.

 $^{^{\}rm d}$ All items, all urban consumers, 1982-1984 = 100, BLS series ID: CUUR0000SA0.

P Preliminary estimates.

r Revised.